

**WHAT IS CLAIMED IS:**

1. A data-determining apparatus comprising:
  - a transaction-data acquisition section which acquires transaction data containing transaction-item data representing items transacted by a customer, quantity data representing the number of pieces of each item transacted and charge data representing charge for the items transacted;
  - a transaction-content calculating section which calculates the number of pieces of each item transacted, the types of the items transacted and charges for each item transacted, from the transaction data about the transactions that the customer has made in a predetermined period, and which generates total transaction-number data, total item-number data and total charge data; and
  - a family-data determining section which determines family data about the customer's family, from the total transaction-number data, the total item-number data and the total charge data.
- 15 2. A data-determining apparatus according to claim 1, further comprising:
  - an advertisement data storage section which stores advertisement data items concerning transactions to be made by the customer in a shop; and
  - a control section which selects and sends advertisement data items to the customer, in accordance with the family data and the total charge data acquired by the family-data acquisition section.
- 20 3. A data-determining apparatus according to claim 1, further comprising a family-data acquisition section which acquires family data, and in which the family-data determining section determines family data different from the acquired family data by using the family data acquired by the family-data acquisition section.
- 25 4. A data-determining apparatus according to claim 1, further comprising a transaction-content-data determining section which determines at least one of data items representing the items transacted by the customer, the number of pieces of each item transacted and the shop in which the items are transacted, in accordance with the family data determined by the family-data determining section and the transaction data acquired

by the transaction-data acquisition section.

5. A data-determining apparatus comprising:
  - a family-data acquisition section which acquires family data containing at least one of data items representing the size, total income and address of a customer's family,
  - 5 the ages of the family members and the family status of the customer;
  - a transaction-data acquisition section which acquires transaction data containing transaction-item data representing the items transacted by the customer, quantity data representing the number of pieces of each item transacted and charge data representing the charge for the items transacted; and
- 10 a transaction content data determining section which determines at least one of data items representing the items to be transacted by the customer, the number of pieces of each item to be transacted and the shop in which the items are to be transacted, in accordance with the family data and the transaction data.
6. A data-determining apparatus according to claim 4, further comprising:
  - 15 an inventory-data acquisition section which acquires inventory data concerning items transacted in the shop; and
  - a purchase-data sending section which generates purchase data concerning items to be purchased into the shop, in accordance with the inventory data and the data items determined by the transaction content data determining section and representing the items
  - 20 to be transacted by the customer and the number of pieces of each item to be transacted, and which sends the purchase data to the shop.
7. A data-determining apparatus according to claim 5, further comprising:
  - an inventory-data acquisition section which acquires inventory data concerning items transacted in the shop; and
  - 25 a purchase-data sending section which generates purchase data concerning items to be purchased into the shop, in accordance with the inventory data and the data items determined by the transaction content data determining section and representing the items to be transacted by the customer and the number of pieces of each item to be transacted, and which sends the purchase data to the shop.

8. A data-determining apparatus according to claim 6, wherein the purchase-data sending section distributes the purchase data in accordance with shop data contained in the transaction data.

9. A data-determining apparatus according to claim 7, wherein the  
5 purchase-data sending section distributes the purchase data in accordance with shop data contained in the transaction data.

10. A data-determining apparatus according to claim 4, in which the family data contains a data item representing contact information of the customer, and further comprising:

10 an advertisement data storage section which stores advertisement data concerning transactions to be made by the customer and generated from the data item which has been determined by the transaction content data determining section and which represents the items transacted by the customer; and

15 an advertisement-data sending section which sends the advertisement data to the customer in accordance with the data item representing the contact information.

11. A data-determining apparatus according to claim 5, in which the family data contains a data item representing the contact information, and further comprising:

11 an advertisement data storage section which stores advertisement data concerning transactions to be made by the customer and generated from the data item which has been determined by the transaction content data determining section and which represents the items transacted by the customer; and

an advertisement-data sending section which sends the advertisement data to the customer in accordance with the data item representing the contact information.

12. A method of determining transaction data concerning a customer, by  
25 using an operation section, said method comprising:

acquiring transaction data containing transaction-item data representing the items transacted by the customer, quantity data representing the number of pieces of each item transacted and charge data representing the charge for the items transacted;

calculating the number of pieces of each item transacted, the types of the items

transacted and charges for each item transacted, from the transaction data about the transactions that the customer has made in a predetermined period, and generating total transaction-number data, total item-number data and total charge data; and

5 determining family data about the customer's family, in accordance with the total transaction-number data, the total item-number data and the total charge data.

13. A method of determining transaction data concerning a customer, by using an operation section, said method comprising:

acquiring family data containing at least one of data items representing the size, total income and address of a customer's family, the ages of the family members and the 10 family status of the customer;

acquiring transaction data containing transaction-item data representing the items transacted by the customer, quantity data representing the number of pieces of each item transacted and charge data representing the charge for the items transacted; and

determining at least one of data items representing the items to be transacted by 15 the customer, the number of pieces of each item to be transacted and the shop in which the items are to be transacted, in accordance with the acquired family data and the transaction data.

14. An apparatus for processing advertisement data, comprising:

a family-data acquisition section which acquires family data concerning a

20 customer's family;

an advertisement data storage section which stores advertisement data concerning transactions made by the customer in a shop;

a transaction-content calculating section which calculates the charges for items transacted by the customer in the shop in a predetermined period and which generates total 25 charge data; and

a control section which selects advertisement data items in accordance with the family data and the total charge data and sends the advertisement data items to the customer.

15. An apparatus according to claim 14, further comprising a

transaction-data acquisition section which acquires transaction data containing a data item representing the items transacted by the customer, and in which

the advertisement data contains data items representing the items advertised, and  
the control section calculates, in accordance with the transaction data, the number  
5 of pieces of each item transacted in the predetermined period and selects an advertisement data item about the item that has been transacted in a quantity greater than a preset value.

16. An apparatus according to claim 14, further comprising a transaction-data acquisition section which acquires transaction data containing transaction-item data representing the items transacted by the customer, quantity data 10 representing the number of pieces of each item transacted and charge data representing the charge for the items transacted, and in which the control section determines at least of data items representing the items to be transacted by the customer, the number of pieces of each item to be transacted and the shop in which the items are to be transacted, in accordance with the family data acquired by the family-data acquisition section and the 15 transaction data acquired by the transaction-data acquisition section, and the control section selects an advertisement data item.

17. An apparatus according to claim 16, further comprising an inventory-data acquisition section which acquires inventory data concerning items transacted in the shop, and in which the control section generates purchase data 20 concerning items to be purchased into the shop, in accordance with the inventory data and at least one of data items representing the items to be transacted by the customer, the number of pieces of each item to be transacted and the shop in which the items are to be transacted, and sends the purchase data to the shop.

18. An apparatus according to claim 15, wherein the control section collates 25 the advertisement data sent to the customer with the data representing the items transacted and acquired by the transaction-data acquisition section after the advertisement data is sent to the customer, thereby to determine whether a transaction has been made on the basis of the advertisement data, and corrects a condition for selecting the advertisement data.

19. An apparatus for processing advertisement data, comprising:

an advertisement data storage section which stores advertisement data concerning transactions made by the customer in a shop;

a transaction-data acquisition section which acquires transaction data containing transaction-item data representing the items transacted by the customer, quantity data

5 representing the number of pieces of each item transacted and charge data representing the charge for the items transacted;

a transaction-content calculating section which calculates the number of pieces of each item transacted, the types of the items transacted and charges for each item transacted, in accordance with the transaction data about the transactions that the customer has made  
10 in a predetermined period, and which generates transaction-number data, item-number data and total charge data;

a family-data determining section which generates family data about the customer's family, in accordance with the transaction-number data, the item-number data and the total charge data; and

15 a control section which selects advertisement data items in accordance with the family data and at least one of the transaction-number data, the item-number data and the total charge data, and which sends the advertisement data items to the customer.

20. An apparatus according to claim 19, wherein

the advertisement data contains data items representing items advertised and data  
20 items representing charges for the items, and

the control section calculates, in accordance with the transaction data, the number of pieces of each item transacted in the predetermined period and selects an advertisement data item about the item that has been transacted in a quantity greater than a preset value.

21. An apparatus according to claim 19, further comprising an  
25 inventory-data acquisition section which acquires inventory data concerning items transacted in the shop, and in which the control section generates purchase data concerning items to be purchased into the shop, in accordance with the inventory data and the transaction-number data, item-number data and total charge data generated by the transaction-content calculating section, and sends the purchase data to the shop.

22. A system for processing advertisement data comprising:  
an advertisement-data processing apparatus as defined in claim 14; and  
a customer terminal which is owned by a customer and connected to the  
advertisement-data processing apparatus to transmit and receive various data items to and  
from the advertisement-data processing apparatus.

5 23. A system for processing advertisement data comprising:  
an advertisement-data processing apparatus as defined in claim 19; and  
a customer terminal which is owned by a customer and connected to the  
advertisement-data processing apparatus to transmit and receive various data items to and  
from the advertisement-data processing apparatus.

10 24. A system according to claim 22, further comprising a shop terminal  
which is owned by a shop and connected to the advertisement-data processing apparatus to  
transmit and receive various data items to and from the advertisement-data processing  
apparatus.

15 25. A system according to claim 23, further comprising a shop terminal  
which is owned by a shop and connected to the advertisement-data processing apparatus to  
transmit and receive various data items to and from the advertisement-data processing  
apparatus.

20 26. A system according to claim 24, wherein the shop terminal is connected  
to the customer terminal to transmit and receive various data items to and from the  
customer terminal.

27. A system according to claim 25, wherein the shop terminal is connected  
to the customer terminal to transmit and receive various data items to and from the  
customer terminal.

25 28. A method of processing advertisement data concerning the transactions  
made by a customer, by using an operation section, said method comprising:  
acquiring family data about the customer's family and calculating the total charge  
for transactions that the customer has made in a shop in a predetermined period, thereby to  
generate total charge data; and

selecting advertisement data items for the customer from the advertisement data stored in an advertisement data storage section, in accordance with the family data and the total charge data, and sending the advertisement data items to the customer.

29. A method of processing advertisement data concerning the transactions  
5 made by a customer, by using an operation section, said method comprising:
  - acquiring, for a predetermined period, transaction data containing transaction-item data representing the items transacted by the customer, quantity data representing the number of pieces of each item transacted and charge data representing the charge for the items transacted;
  - 10 calculating the number of pieces of each item transacted, the types of the items transacted and charges for each item transacted, in accordance with the transaction data about the transactions that the customer has made in a predetermined period, and generating transaction-number data, item-number data and total charge data;
  - 15 determining family data about the customer's family, in accordance with the transaction-number data, the item-number data and the total charge data; and
  - selecting advertisement data items for the customer from an advertisement data storage section in accordance with the family data and at least one of the transaction-number data, the item-number data and the total charge data, and sending the advertisement data items to the customer.
- 20 30. A data-determining program for causing an operation section to perform the data-determining method as defined in claim 12.
31. A data-determining program for causing an operation section to perform the data-determining method as defined in claim 13.
32. A recording medium recording the data-determining program as defined  
25 in claim 30, which is readable by an operation section.
33. A recording medium recording the data-determining program as defined in claim 31, which is readable by an operation section.
34. A program for processing advertisement data, for causing an operation section to perform the advertisement-data processing method as defined in claim 28.

35. A program for processing advertisement data, for causing an operation section to perform the advertisement-data processing method as defined in claim 29.

36. A recording medium recording the advertisement-data processing program as defined in claim 34, which is readable by an operation section.

5 37. A recording medium recording the advertisement-data processing program as defined in claim 35, which is readable by an operation section.